
U.S. Department of the Interior • U.S. Geological Survey

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LEAD IN JULY 1997

Mine production, based upon the net quantity recovered in the smelting of concentrate, increased by 2% in July but was down by 11% compared with production in July 1996. Primary refinery production decreased by 10% in July, but was up by about 1% compared with production in July 1996. Secondary refinery production increased by about 1% in July and was up by 7% compared with production in July 1996. Reported consumption decreased by 5% in June.

According to *Platt's Metals Week* published quotations, the average North American producer price and London Metal Exchange (LME) cash price moved upward in July, increasing by 0.4% and 3.2%, respectively.

National Defense Stockpile cash disposal (sale) of lead in July 1997 was 1,330 metric tons (1,466 short tons). Sale of lead to date in fiscal year 1997 (October 1996 through July 1997) was 13,368 metric tons (14,736 short tons).

Mexico's Grupo Industrias Peñoles announced in mid-July that it would not proceed with its purchase of a controlling interest in the La Oroya smelting and refining complex, owned by Peru's Empresa Minera del Centro del Perú (CENTROMIN). Peñoles noted that "the decision was made because the requirements that Peñoles had set to guarantee adequate profitability did not come together." A statement from CENTROMIN claimed that "after the auction, and in an unexpected manner, Peñoles asked for the delivery of conditions which did not figure in the official requirements, nor were they the subject of consultations prior to the auction." Peñoles had been the highest bidder in an auction for La Oroya held in May 1997. As a result of Peñoles decision to withdraw from purchasing La Oroya, a CENTROMIN spokesman indicated

that the purchase of the complex would be offered to the next highest bidder, The Doe Run Co., St. Louis, MO. A Doe Run spokesman stated that the company would be interested in holding fresh talks with CENTROMIN, once it had received official confirmation of Peñoles withdrawal. The Doe Run spokesman further stated: "we made a bid that was pursuant to negotiations with CENTROMIN, and we would still be interested (in participating) in that fashion" (Mining Journal, 1997).

The Advanced Lead-Acid Battery Consortium (ALABC) recently awarded two new contracts for the production of valve-regulated lead-acid (VLRA) batteries with enhanced range and life characteristics for use in electric vehicles. East Penn Manufacturing Co., Lyons, PA, and Yuasa-Exide, Reading, PA, each were commissioned to produce batteries that will approach ALABC life and specific energy targets of 500 cycles and 50 watt-hours per kilogram. East Penn will construct batteries that employ lightweight grids which are 70% thinner and exhibit greater strength and corrosion resistance than traditional battery grids. Yuasa-Exide also will use thinner grids in developing its battery and will incorporate an advanced tubular design (Advanced Battery Technology, 1997).

References Cited

- Advanced Battery Technology, 1997, Contracts focus on range and cycle life: Advanced Battery Technology, vol. 33, no. 7, p. 6.
Mining Journal, 1997, Peñoles withdraws from La Oroya deal: Mining Journal, vol. 329, no. 8438, July 18, p. 43.

TABLE 1
SALIENT LEAD STATISTICS IN THE UNITED STATES 1/

(Metric tons)

	1996		1997		
	Year total	Jan. - July	June	July	Jan. - July
Production:					
Mine (recoverable)	426,000	251,000 r/	33,900 r/	34,700	256,000
Primary refinery 2/	326,000	199,000	28,700	25,900	205,000
Secondary refinery:					
Reported by smelters/refineries	1,080,000 r/	549,000	83,100	84,100	600,000
Estimated	(3/)	8,230	1,320	1,350	9,730
Recovered from copper-base scrap e/	16,400 r/	8,750	1,250	1,250	8,750
Total secondary	1,100,000 r/	566,000	85,700	86,700	616,000
Stocks, end of period:					
Primary refineries 2/	XX	XX	10,900	6,530	XX
Secondary smelters and consumers	XX	XX	64,400 r/	60,400	XX
Imports for consumption:					
Ore and concentrates (lead content)	6,570	3,120	716	NA	5,970 4/
Refined metal	268,000	142,000	18,700	NA	122,000 4/
Consumption:					
Reported	1,530,000 r/	469,000	105,000 r/	99,600	729,000
Undistributed e/	(3/)	287,000	17,100 r/	16,200	116,000
Total	1,530,000 r/	756,000	122,000 r/	116,000	846,000
Exports (lead content):					
Ore and concentrates	59,700	13,700	374	NA	7,300 4/
Materials excluding scrap	102,000	57,600	11,200	NA	53,500 4/
Ash and residues	19,400	9,360	1,570	NA	10,200 4/
TEL/TML preparations, based on lead compounds	3,200	537	498	NA	1,290 4/
Exports (gross weight): Scrap	85,300 5/	49,300 5/	7,420	NA	40,100 4/
Platt's Metals Week North American producer price (cents per pound)	48.83	48.64	45.90	46.09	47.02

e/ Estimated. r/ Revised. NA Not available. XX Not applicable.

1/ Data are rounded to three significant digits, except prices; may not add to totals shown.

2/ Data from American Bureau of Metal Statistics, Inc. (ABMS).

3/ Revised to zero.

4/ Includes data for January - June only; July data not available at time of publication.

5/ Includes only non-battery scrap data.

TABLE 2
MONTHLY AVERAGE LEAD PRICES

	North American producer price cents/lb	LME		Sterling exchange rate dollars/£
		\$/metric ton	£/metric ton	
1996:				
July	49.48	783.24	504.34	1.553005
Average Jan. - July	48.64	789.89	516.01	1.531095
Year average	48.83	773.87	495.56	1.561616
1997:				
April	46.52	642.09	394.07	1.629323
May	45.94	618.23	378.78	1.632167
June	45.90	614.49	373.61	1.644743
July	46.09	633.91	379.73	1.669382
Average Jan. - July	47.02	650.63	397.20	1.638474

Source: Platt's Metals Week.

TABLE 3
MINE PRODUCTION OF RECOVERABLE LEAD IN THE UNITED STATES 1/

(Metric tons)

	1996		1997		
	Year total	Jan. - July r/	June r/	July	Jan. - July
Missouri 2/	397,000	232,000	30,900	31,600	235,000
Montana	7,970	4,510	W	864	W
Other States 3/	21,200	14,300	2,940	2,200	21,100
Total	426,000	251,000	33,900	34,700	256,000
Daily average 4/	1,160	1,180	1,130	1,120	1,210

r/ Revised. W Withheld to avoid disclosing company proprietary data.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Alaska and Missouri combined to avoid disclosing company proprietary data.

3/ Includes Colorado, Idaho, Illinois, New York and Tennessee.

4/ Based on number of days in period without adjustment for Sundays or holidays.

TABLE 4
CONSUMPTION OF PURCHASED LEAD-BASE SCRAP IN JULY 1997 1/

(Metric tons, gross weight)

Item	Stocks June 30, 1997	Net receipts	Consumption	Stocks July 31, 1997
Battery-lead	28,100 r/	92,900	92,100	28,800
Soft lead	W	W	W	W
Drosses and residues	2,080 r/	4,990	5,000	2,080
Other 2/	2,640 r/	2,660	2,650	2,660
Total	32,800 r/	101,000	99,800	33,600
Percent change from preceding month	--	-4.4	-6.0	+2.3

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Other."

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes solder, common babbitt, antimonial lead, cable covering, type metals, and other lead-base scrap not elsewhere classified.

TABLE 5
LEAD, TIN, AND ANTIMONY RECOVERED FROM LEAD-BASE
SCRAP IN JULY 1997 1/

(Metric tons)

Product recovered	Secondary metal content		
	Lead	Tin	Antimony
Soft and calcium lead	47,000	--	--
Remelt lead	W	W	W
Antimonial lead	31,800	13	W
Other 2/	W	W	--
Total lead-base	84,100	37	396

W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits.

2/ Includes cable lead, lead-base babbitt, solder, type metals, and other products.

TABLE 6
CONSUMPTION OF LEAD IN THE UNITED STATES 1/

(Metric tons, lead content)

Uses	1996		1997		
	Jan.-Dec. 2/	Jan.- July	June	July	Jan.- July
Metal products:					
Ammunition-shot and bullets	52,100	24,400	6,100	3,060	30,100
Brass and bronze-billet and ingots	9,060	3,580	505	501	3,650
Cable covering-power and communication and calking lead-building construction	6,890	3,720	866 r/	592	4,650
Casting metals	1,400	837	417 r/	398	3,050
Pipes, traps, and other extruded products	(3/)	(3/)	(3/)	(3/)	(3/)
Sheet lead	21,200	5,710	1,560 r/	1,070	10,000
Solder	9,020	3,510	899 r/	528	4,280
Storage batteries, including oxides	1,340,000	414,000	94,400 r/	92,800	669,000
Terne metal, type metal, and other metal products 4/	9,560	4,350	190	196	1,360
Total metal products	1,460,000	460,000	105,000 r/	99,100	726,000
Other oxides	(5/)	(5/)	(5/)	(5/)	(5/)
Miscellaneous uses	68,900	8,170	379	460	3,570
Total reported	1,530,000	469,000	105,000 r/	99,600	729,000
Undistributed consumption e/	--	287,000	17,100 r/	16,200	116,000
Grand total	1,530,000	756,000	122,000 r/	116,000	846,000

e/ Estimated. p/ Preliminary. r/ Revised.

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes annual data.

3/ Withheld to avoid disclosing company proprietary data; included with "Sheet lead."

4/ Includes lead consumed in foil, collapsible tubes, annealing, plating, galvanizing, and fishing weights.

5/ Withheld to avoid disclosing company proprietary data; included with "Miscellaneous uses."

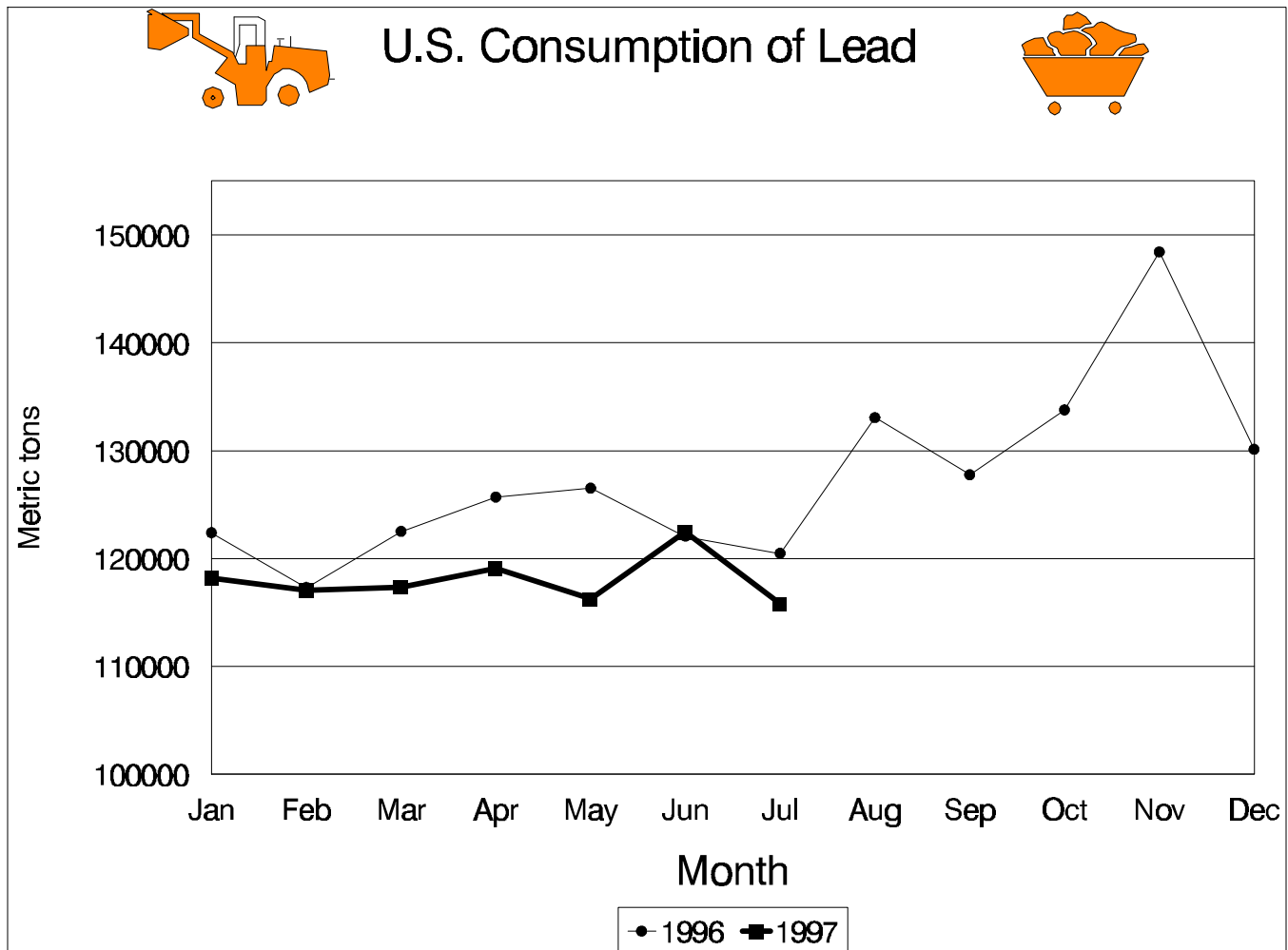


TABLE 7
CONSUMER AND SECONDARY SMELTER STOCKS, RECEIPTS, AND
CONSUMPTION OF LEAD IN JULY 1997 1/

(Metric tons, lead content)

Type of material	Stocks June 30, 1997	Net receipts	Consumption	Stocks July 31, 1997
Soft lead	26,300 r/	52,500	52,300	26,500
Antimonial lead	32,200 r/	25,800	29,900	28,100
Lead alloys	W	16,900	16,900	W
Copper-base scrap	W	424	424	W
Total	64,400 r/	95,500	99,600	60,400

r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Total."

1/ Data are rounded to three significant digits; may not add to totals shown.

TABLE 8
U.S. EXPORTS OF LEAD, BY CLASS 1/

(Metric tons)

	1996		1997		
	Year total	June	May	June	Jan. - June
Lead content:					
Ore and concentrates	59,700	116	350	374	7,300
Materials excluding scrap	102,000	4,980	13,700	11,200	53,500
Ash and residues	19,400	266	860	1,570	10,200
TEL/TML preparations, based on lead compounds	3,200	77	244	498	1,290
Total	184,000	5,440	15,200	13,600	72,200
Gross weight: Scrap	85,300 2/	8,570 2/	5,290	7,420	40,100

1/ Data are rounded to three significant digits; may not add to totals shown.

2/ Includes only non-battery scrap data.

Source: Bureau of the Census.

TABLE 9
U.S. IMPORTS OF LEAD BY TYPE OF MATERIALS AND BY COUNTRY OF ORIGIN 1/

(Metric tons, lead content)

Country of origin	General imports					Imports for consumption				
	1996		1997			1996		1997		
	Year total	Jan. - June	May	June	Jan. - June	Year total	Jan. - June	May	June	Jan. - June
Ore, matte, etc.:										
Bolivia	326	278	--	--	445	--	--	--	--	--
Canada	352,000	184,000	59	706	58,900	4,370	2,370	53	700	753
Mexico	2,890	390	--	--	558	2,080	390	--	--	558
Peru	13,400	7,600	--	508	2,420	--	--	--	--	--
Other	133	122	1,130	16	5,110	122	122	679	16	4,660
Total	369,000	193,000	1,190	1,230	67,400	6,570	2,890	732	716	5,970
Base bullion:										
Mexico	5	--	--	--	5	5	--	--	--	5
Total	5	--	--	--	5	5	--	--	--	5
Pigs and bars:										
Belgium	11	--	--	19	47	11	--	--	19	47
Canada	192,000	85,000	13,200	12,800	91,200	192,000	85,000	13,200	12,800	91,300
Germany	338	120	72	14	240	338	120	72	14	240
Mexico	56,900	27,700	3,860	5,340	26,500	56,900	27,700	3,860	5,340	26,500
Peru	17,100	9,590	500	500	3,200	17,100	9,590	500	500	3,200
United Arab Emirates	160	83	11	--	42	160	83	11	--	42
United Kingdom	19	--	--	--	--	19	--	--	--	--
Other	846	66	--	20	930	846	39	--	20	930
Total	267,000	123,000	17,600	18,700	122,000	268,000	123,000	17,600	18,700	122,000
Reclaimed scrap, including ash and residues	192	159	--	48	48	192	159	--	48	48
Grand total	636,000	315,000	18,800	20,000	190,000	274,000	126,000	18,300	19,400	128,000

1/ Data are rounded to three significant digits; may not add to totals shown.

Source: Bureau of the Census.